



EXAMINATION NOTIFICATION

efile no:- BSNLCO-11/13(12)/2/2023-RECTT-CO

Dated:- 16/05/2023

To

The Chief General Managers,
A&N/ AP/AS/ BH/CHG/CTD/ CHTD
GJ/HAR/KTK/KLA/MP/MH/NE-II/
OD/RJ/TN/TLGN/Sikkim/UTK & CN(Tx-N).
BSNL Telecom Circles.

Subject:- Limited Internal Competitive Examination (LICE) for promotion to the grade of Junior Telecom-officer (Telecom) [JTO (T)] under 50% internal quota for vacancy year 2022 (Calendar Year) up to 31.12.2022.

STARTING DATE OF ONLINE REGISTRATION OF APPLICATION	Will be communicate separately
LAST DATE OF ONLINE REGISTRATION	Will be communicate separately
EDITING/MODIFICATION IN APPLICATION DATA BY CANDIDATE	Will be communicate separately
DATE OF ONLINE EXAMINATION	Will be communicate separately

2. It has been decided with the approval of the Competent Authority to hold an online Limited Internal Competitive Examination (LICE) for promotion to the grade of Junior Telecom-officer (Telecom) [JTO (T)] to fill up the vacant posts in the grade of Junior Telecom-officer (Telecom) [JTO (T)] under 50 % internal quota for vacancy year 2022 for vacancies upto 31.12.2022 **(as per ANNEXURE-A)** from the eligible candidates of BSNL. Vacancies indicated Annexure-A also include carried forward (Backlog) vacancies from VY 2021 which are shown separately against each Circles.

Note:

I. The number of vacancies mentioned in ANNEXURE-A is tentative and subject to change. Reservation will be effective as per guidelines/policy/ court orders by Government of India, if any.

II. Since the **Jarnail Singh** batch of cases is pending in the Supreme Court of India, any promotion order issued shall be subject to further orders that may be passed by the Supreme Court in the said batch of cases.

III. The LICE for promotion to the post of JTO(T) under 50% internal quota for vacancy year 2022 shall be conducted as per provisions laid in the Recruitment



Rules (RR) of JTO(T) 2014 issued vide BSNL Corporate Office Letter No. 5-32/2013-Estt-IV dated 14.10.2015 (**ANNEXURE-B**).

IV. The LICE shall be held as per scheme & syllabus for this said examination circulated vide letter no. 5-11/2009-Pers-IV dated 20.10.2009 and modified vide letter no. 5-11/2009-Pers-IV dated 01.11.2011 (**ANNEXURE-C**).

V. Reservation in promotion for persons with disabilities (PwBDs) will be applicable as per the GOI instruction.

3. The Eligibility for the examination prescribed in terms of RR of JTO (T) 2014 issued vide Ltr. No. 5-32/2013-Estt-IV dated 14.10.2015 read with DoP&T O.M No. 22011/4/2013—Estt (D) Dated 08th May, 2017 are as follows,

- The applicant must be in the pay scale of 13600-25420 or above with combined 5 years residency period in the pay scale of 13600-25420 or above as on 1st January of the vacancy year.
- The applicant should be below the age of 55 years as on 1st January of the vacancy year to be eligible for this said LICE.

4. Subject to para 3 above, the eligibility for appearing in the above mentioned Limited Internal Competitive Examination shall be as per existing Recruitment Rules of JTO (T) issued by cadre controlling authority of BSNL CO vide their letter no. 5-32/2013-Estt-IV dated 14.10.2015. In case of any doubt with regard to eligibility, schemes and syllabus of the examination, the circles may take up the matter suitably with the cadre controlling authority i.e Establishment Branch of BSNL CO for necessary clarification.

5. There will be a single paper. The details of the Paper and Time Table of the examination will be as under:

Sl No.	Paper No.	Name of Paper	Maximum Marks/No. of Questions	Day & Date	Time (IST) /Duration
1	(Part-A)	General English & General Studies(Objective multiple choice questions)	50 Marks(50 Questions of one Mark each)	Will be communicate separately	10:00 hrs to 13:00 hrs (3hrs)
2	(Part-B)	Technical Paper (Specialization) (Objective multiple choice questions)	100 Marks (100 Questions of one Mark each)		

The LICE shall be held through online mode.

- a. All questions will be of Multiple Choice Type (MCQ). Each question contains four options and the candidate has to select only one correct answer. There



would be negative marking and for each wrong answer 25% of the mark of that question would be deducted.

b. Minimum qualifying marks prescribed is as under:-

S.No	Category	Minimum qualifying Marks in each part	Aggregate Marks
1	OC	30%	37%
2	SC/ST	23%	30%

Note:-

Please note that there shall be no further relaxation of marks or any other parameter under any circumstances owing to maintenance of efficiency of administration.

6. The LICE will be held in following 21 BSNL Telecom circles (**A&N/ AP/AS/ BH/CHG/ CTD/ CHTD/GJ/HAR/KTK/KLA/MP/MH/NE-II/OD/RJ/TN/TLGN/ Sikkim/UTK & CN(Tx-N)**) at their respective headquarters. The details of the BSNL Territorial circles where the LICE will be conducted are given at **Annexure-D**.

7. The employees, who are eligible in accordance with the eligibility conditions as referred in the Recruitment Rules and who desire to appear in the examination should submit the application on-line. Candidates applying for LICE for promotion to the grade of Junior Telecom- officer (Telecom) [JTO (T)] are required to apply online for which link shall be provided through BSNL website www.internalexam.bsnl.co.in, Candidates are advised to visit BSNL Intranet site (www.intranet.bsnl.co.in) for any updates regarding the LICE. The candidates applying for LICE for [JTO (T)] are required to read all the instructions provided on website www.internalexam.bsnl.co.in, before filling the online application form. Candidates must have valid E-mail ID and Mobile Number at the time of online Registration. After submitting the application on-line, the applicant shall retain a hard & soft copy of the application form for record.

8. The prescribed examination fee shall be Rs.1000/- (Rupees one thousand only) for the OC candidates, and Rs. 500/- (Rupees five hundred only) for the SC/ST candidates. The same shall be paid through online mode i.e. Internet Banking, Credit Card, Debit Card etc. **The amount of the fee shall not be accepted in any other form. Fee once paid for the said LICE shall neither be refunded under any circumstances nor can be held in reserve for any other examination or selection even if the exam is not conducted due to any reasons. Candidates are requested to ensure their eligibility for the said LICE before applying for the same.**

9. Candidates are advised to complete their online registration process well before the last date to avoid last day rush/technical glitches/unforeseen



circumstances. Online registration process will not be allowed after the last date and all incomplete registrations will be treated as rejected. Candidates will have to download their online application form. The candidates shall have to download an Admit Card from the BSNL internal exam website www.internalexam.bsnl.co.in, before the date of the online test by using their user login credential. The admit card will not be sent either by post or by E-mail. BSNL shall not be responsible for server crash problems or delays occurring on the last day of registration.

10. I. The applicants would be admitted to the examination on the basis of data/information furnished by them and captured during online registration of candidature. The said captured data/information shall be sent to Circles for verification of eligibility with respect to service particulars available in Service Book, SAP etc. Candidates are, therefore, once again advised to ensure that they fulfil all eligibility conditions before applying. **The applicant must also ensure regarding his Parent circle / category while filling the same in online application.**

II. In case it is found at a later stage that the information furnished by an applicant is false or an applicant does not fulfil any of the eligibility conditions, the candidature of such applicants shall be cancelled and no correspondence in this regard shall be entertained. Issuance of an Admit card for the examination will NOT confer candidates any right for promotion/appointment etc. The promotion will be solely subject to fulfilment of all eligibility conditions (& availability of vacancies in the concerned circle), provided by concerned authorities.

11. BSNL shall display/provide the questions & provisional answer key on the same portal soon after the Exam, for a stipulated period, wherein candidate shall be provided with a suitable format to submit their online grievances/queries on question/answer options only on chargeable basis to discourage unscrupulous grievances. The same shall be paid through online mode i.e. Internet Banking, Credit Card, Debit Card etc. On the basis of grievance received from candidates, if any, the final answer key & merit list shall be deployed as per prevailing guidelines.

12. Issuance of candidate response sheet, score card etc. for the said LICE shall NOT confer candidate any right for promotion/appointment etc. The promotion will be solely subject to fulfilment of all eligibility conditions and magnitude of qualified marks secured vis-à-vis availability of vacancies. **The aspect of Eligibility shall be solely on Circles and therefore circles should ensure that Service particulars of candidates in service Book/ERP are up-to-date in all respect to avoid any kind of pre/post exam discrepancies.**

13. Nothing other than specified in the Admit card shall be permitted to be taken inside the examination premises by the candidates. Violation of any of the instructions at any stage will make the candidate liable for disqualification of the candidature without assigning any reason thereof.



14. The concerned circles shall constitute an examination conducting team with suitable nos. of members, wherein an Executive/Officer not below the rank of **GM** (preferably from HR/Admin sections) would be the **Examination Co-ordinator**.

15. The Examination Coordinator then shall nominate the **Examination Superintendent (ES)** not below the rank of **DGM or equivalent**. The Examination Coordinator shall also depute **Examination Observer (EO)** at every exam centre irrespective of numbers of candidates. The Examination Observer (EO) should not be below the rank of **AGM/DE/EE** or equivalent. The Examination Observer (EO) would submit the report to the Examination Co-ordinator. The duties and responsibilities of Examination Co-ordinator (EC), Examination Superintendent (ES) and Examination Observer (EO) will be sent separately.

The Circles should also intimate the following details in respect of the Examination Coordinator, Examination Superintendent and Examination Observer to the undersigned through the E-mail IDs bsnlrectt@bsnl.co.in by 31.05.2023:-

- a. Name:
- b. Designation:
- c. Office Address :
- d. Office telephone Number:
- e. Mobile Number:
- f. Authenticated BSNL E-mail Address:
- g. Alternate E-mail Address:

16. Circle heads are requested to arrange for the pre exam training to aspiring SC/ST candidates for aforesaid LICE, as per admissible rules.

17. Promotion on the basis of result of this examination will be subject to the outcome of court cases pending in different courts on the issue related to reservation and also DoP&T instructions issued from time to time and endorsed by Establishment section of BSNL.

18. The decision of BSNL in all matters relating to eligibility, acceptance or rejection of the applications for false information, mode of selection, conduct of examination(s) and allotment of examination centres will be final and binding on the candidates and no enquiry/correspondence will be entertained in this regard. Discrepancies regarding eligibility during exam or later shall make candidates liable for rejection of candidature. **The custodian of the service book shall ensure all**



भारत संचार निगम लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT SANCHAR NIGAM LIMITED

(A Govt. of India Enterprise)

Recruitment Branch

BSNL Corporate Office, Room no: 215,

2nd Floor, Eastern Court, Janpath, New Delhi-110001

aspects while verifying the eligibility and shall be sole responsibility of eligibility verifying authority.

19. All Circles are requested to bring this notification to the notice of all working eligible employees.

20. BSNL reserves the right to modify/amend any of the terms & conditions of this recruitment at any point of time.

Jitendra Kumar Verma
16/05/2023

Jitendra Kumar Verma
DGM(Recruitment) BSNL CO

Enclosure:-

1. Circle wise distribution of LICE JTO(T) vacancies up to 31.12.2022(ANNEXURE-A)
2. The Recruitment Rules of Junior Telecom- officer (Telecom) [JTO (T): ANNEXURE 'B'.
3. The Schemes & Syllabus of LICE Group 'C' employees to the grade of Junior Telecom- officer (Telecom) [JTO (T)] : ANNEXURE 'C'.
4. List of Examination centres of LICE Junior Telecom- officer (Telecom) [JTO (T): ANNEXURE 'D'.

Copy to:

1. The CGMTs of 21 BSNL Telecom circles (**A&N/ AP/AS/ BH/CHG/CTD/ CHTD/GJ/HAR/KTK/KLA/MP/MH/NE-II/OD/RJ/TN/TLGN /Sikkim/ UTK & CN(Tx-N)**) for taking necessary action and a request to arrange necessary training to SC/ST candidates as per usual norms please.
2. PGM(Estt.) BSNL CO for kind information please.
3. All concerned circles (**A&N/AP/AS/BH/CHG/CTD/CHTD/GJ/HAR/KTK /KLA/MP/MH/NE-II/OD/RJ/TN/TLGN /Sikkim/ UTK & CN(Tx-N)**) to ensure to update service particulars of all probable candidates for the said LICE from service book for timely e-verification of eligibility through ERP please.

Circle wise distribution of JTO(T) Vacancies for VY-2022 upto 31.12.2022

SN.No	Name of Circle	OC	SC	ST	Total	PwBD
1	Andhra Pradesh*					
	vacancies for VY-2022	7	1	0	8	1
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	7	1	0	8	1
2	A&N					
	vacancies for VY-2022	0	0	0	0	0
	vacancies carried forward from VY-2021	0	2	1	3	0
	Total	0	2	1	3	0
3	Bihar					
	vacancies for VY-2022	0	0	0	0	0
	vacancies carried forward from VY-2021	0	0	3	3	0
	Total	0	0	3	3	0
4	Calcutta Telephones					
	vacancies for VY-2022	1	0	0	1	0
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	1	0	0	1	0
5	Chennai Telephone					
	vacancies for VY-2022	1	1	0	2	0
	vacancies carried forward from VY-2021	9	10	6	25	0
	Total	10	11	6	27	0
6	Gujarat					
	vacancies for VY-2022	1	1	0	2	0
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	1	1	0	2	0
7	Haryana					
	vacancies for VY-2022	3	0	3	6	1
	vacancies carried forward from VY-2021	0	0	4	4	0
	Total	3	0	7	10	1
8	Madhya Pradesh					
	vacancies for VY-2022	7	1	1	9	0
	vacancies carried forward from VY-2021	0	25	10	35	0
	Total	7	26	11	44	0

9	Skkim					
	vacancies for VY-2022	13	1	0	14	1
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	13	1	0	14	1
10	Karnataka					
	vacancies for VY-2022	4	2	1	7	0
	vacancies carried forward from VY-2021	27	47	23	97	0
	Total	31	49	24	104	0
11	Tamil Nadu					
	vacancies for VY-2022	11	2	1	14	1
	vacancies carried forward from VY-2021	0	0	1	1	0
	Total	11	2	2	15	1
12	Maharastra					
	vacancies for VY-2022	4	1	1	6	0
	vacancies carried forward from VY-2021	25	17	11	53	0
	Total	29	18	12	59	0
13	Assam					
	vacancies for VY-2022	2	0	0	2	0
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	2	0	0	2	0
14	Chattisgarh					
	vacancies for VY-2022	1	0	0	1	0
	vacancies carry forward from VY-2021	8	6	0	14	0
	Total	9	6	0	15	0
15	Kerala					
	vacancies for VY-2022	7	1	1	9	0
	vacancies carried forward from VY-2021	3	22	11	36	0
	Total	10	23	12	45	0
16	CN(Tx-North)					
	vacancies for VY-2022	1	0	0	1	0
	vacancies carried forward from VY-2021	16	0	3	19	0
	Total	17	0	3	20	0
17	Odisha					
	vacancies for VY-2022	3	2	0	5	0
	vacancies carried forward from VY-2021	13	23	9	45	0
	Total	16	25	9	50	0

18	UTK					
	vacancies for VY-2022	0	0	0	0	0
	vacancies carried forward from VY-2021	1	0	7	8	0
	Total	1	0	7	8	0
19	Rajasthan					
	vacancies for VY-2022	2	1	1	4	0
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	2	1	1	4	0
20	NE-II					
	vacancies for VY-2022	1	0	0	1	0
	vacancies carried forward from VY-2021	0	3	0	3	0
	Total	1	3	0	4	0
21	Telengana					
	vacancies for VY-2022	7	5	2	14	1
	vacancies carried forward from VY-2021	0	0	0	0	0
	Total	7	5	2	14	1
	Total Vacancies	178	174	100	452	5

M. Mani
3/5/23

(M. Manitombi)
Asstt. Gen. Manager (Estt.-IV)

Bharat Sanchar Nigam Limited
(A Govt. of India Enterprise)
Corporate Office
(Personnel-IV Section)
[Establishment Branch]

Bharat Sanchar Bhawan, New Delhi-110 001

No. 5-11/2009-Pers.IV
Dated: Oct. 20th, 2009.


TO,

CGMs All Telecom Circles,
CGMs Kolkata & Chennai Telephone Districts,
CGMs Project/ Mtce./ Telecom Factories/ Q&A/ Inspection/ NCES/ Broad
Band Network/ IT/ ITPC/ NATFM/ NETF/ Telecom Stores Circles,
CGMs ALTTC/BRBRAITT,
All Other Administrative Units,
Bharat Sanchar Nigam Limited.

Subject:- Scheme and Syllabus for Limited Internal Competitive Examination (LICE) for filling up posts in the cadre of JTO(Telecom) under both 35% and 15% quota.

The Scheme and Syllabus for Limited Internal Competitive Examination (LICE) for filling up posts in the cadre of JTO (Telecom) under both 35% and 15% quota will be as per the enclosed Annexure-I.

It has the approval of the Competent Authority.


20.10.09

(P.M.VERMA),

Asstt. General Manager (Pers-IV),

TF: 011-23734152 FAX: 011-23734051.

Copy to:-

1. P.S. to MOC&IT/ MOS (C&IT).
2. CMD, BSNL, New Delhi.
3. DIRECTOR, BSNL CO.
(HR)/ (CFA)/ (CM)/ (Finance)/ (Enterprise).
4. EXECUTIVE DIRECTOR, BSNL CO. (CA)/(CN)/(F)
5. GM
(Pers.)/ (Estt.)/ (TF)/ (Trg.)/ (Rectt.), BSNL CO.
6. DDG(Estt)/ Director (Staff), DoT.
7. DGM
(Pers.)/ (Estt.)/ (TF)/ (Trg.)/ (Rectt.), BSNL CO.
8. ADG (PAT)/ (SNG), DoT.
9. AGM (Pers-I)/ (Pers-II)/ (Pers-III)/ (Pers-IV)/ (Pers-V), BSNL CO.
10. All Unions/Associations concerned.
11. OL section for Hindi version.
12. Intranet BSNL.
13. Spare copy.


20/10/09

(D.S.BEDI)

Dy. Manager (Pers-IV)

Subject: Scheme and Syllabus for the Limited Internal Competitive Examination (LICE) for filling up vacancies in the cadre of Junior Telecom Officer (Telecom.) under 35% and 15% Internal Quota

1. SCHEME OF EXAMINATION :-

1.1 The Question Paper will consist of two parts as given under:

Subject	Maxi. Marks- 150	Duration
Part A- General English & General Studies (Objective Multiple Choice Questions)	50 Marks (50 Questions of one Mark each)	3 Hrs.
Part B - Technical Paper (Specialization) (Objective Multiple Choice Questions)	100 Marks (100 Questions of one Mark each)	

1.2. The minimum qualifying marks in the examination will be 40% of total marks for General candidates and 33% of total marks for SC/ST candidates.

2. SYLLABUS:

2.1. Part A- General English & General Studies- 50Marks.

Standard of the paper:-Standard of the paper will be such that of CBSE Xth Standard.

2.1.1 General English- 25 Marks.

The question paper in General English shall be designed to test the candidate's understanding of English.

The pattern of question shall be broadly as follows:-

- (i) Comprehension of given passages.
- (ii) Usages and vocabulary
- (iii) Grammar

2.1.2 General Studies – 25 marks.

The paper on General Studies shall include questions on the following topics:-

- (1) General Science.
- (2) Geography of India and its natural resources.
- (3) Current Events of National & International Importance.
- (4) General Mental Ability Test.

Questions of General Science will cover General Appreciation and understanding of Science including matters of everyday observations and experience, as may be expected of an educated person, who has not made a special study of any scientific discipline.

Questions in the Geography of India and its natural resources will relate to Physical Social & Economic Geography of India.

Questions on the General Mental Ability Test will include questions on Analogies, similarities, differences, space visualization, problem solving, analysis, Judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal & figure classification, arithmetical number series etc.

2.2 Part B- TECHNICAL PAPER-(SPECIALIZATION) (100 Marks)
Standard of paper : The standard of Paper shall be that of an Engineering Diploma

Computer Architecture:

Computer architecture, basic computer organization and design programming, CPU, I/O organization, memory organization. Control unit design. Familiarization with DOS and Windows-concept of file, directory, folder, Number systems, Programming-Elements of a high level programming language, PASCAL , C:Use of basic data structures. Web Page Design; Scripting Language - Perl / CGI / JavaScript; Fundamentals of JAVA Programming; Advanced Features of JAVA Programming.

Data Communication and Computer Network:

Data Network and Networking Basics; MAC & Data Link Layer Network, Transport (TCP/IP). Introduction to Computer Network, LAN, MAN, WAN, Network essentials, Internet addresses, ARP, RARP, Internet protocols, user data, gram protocol, transmission control protocol, routines, internet multi testing, socket interface, domain name system, applications.

Data Structure and Algorithms :

Basis concepts of data representation, introduction to algorithms design and data structure, Arrays stacks and queues, linked lists, storage allocation and garbage collection, symbol tables, Searching, Sorting and Merging Techniques.

Database Management System :

Database, Data models, rational algebra and normalization, statistical quality level, distributed and object data basis.Introduction to the Relational Model; Normalisation and Query Processing; Recovery, Concurrency Management and Database Security.

Electronic / Electrical Measurement & Measuring Instrument :

Electrical Measuring Instruments, Watt meters and energy meters, measurement of resistance, measurement of inductance and capacitance, electronic voltmeters, audio and radio frequency measurements, A F & R F Power measurements, digital instruments.

Electrical Installation & Maintenance :

Single-Phase supply vs. 3 Phase supply, Star Delta connections, relation between phase & line voltage power factor. All types of motor and generators-AC & DC transformers, starters, rectifiers, inverters, batteries. Installation, commissioning, earthing, insulation testing and maintenance, preventive maintenance, electrical accidents and safety measures, switchgear, sub-stations, maintenance of relays and circuit breakers. A.C. Circuits, Circuit Theorems, Four Terminal Passive Networks, Coupled circuits and their analysis, Passive filters, Lightning protection, power electronics application in control of drivers, Refrigeration & air-conditioning.

Fundamentals of Digital Circuits :

Fundamentals of digital electronics , Transistor as a switching elements; Boolean algebra, Simplification of Boolean functions, Karnaugh Map and applications; Number System, IC Logic Gates, Logic-Circuits, Encoders and Decoders, binary code converters, Arithmetic Logic Units (ALU), DTL, TTL, NMOS, PMOS AND CMOS gates and their comparison; Combination logic circuits; Half adder, full adder; Digital Comparator, Multiplexer Demultiplexer; ROM and their applications. Flip-flops, R-S, J-K, D and T Flip-flops; Different type of counters and registers; A/D and D/A converters;

Communication Systems:

Amplitude, frequency and phase modulation, their generation and demodulation, Noise. PCM, basic principles of SPC Exchanges. Quantization & Coding; Time division and frequency division multiplexing; Equalization; Optical communication- in free space & fibre optic; Propagation of signals at HF, VHF, UHF and Microwave frequency; Satellite Communication.

Foundation in Information Technology :

Information System - Hardware; Software; Software Engineering; Operating Systems.

Computing:

An Object Oriented Approach : Introduction to Object Oriented Concepts; Object Oriented Programming Language; Object Oriented Analysis and Design.

Discrete Electronic Devices & Circuits :

The P-N Junction, Junction Diode, Zener Diode, B.J.T. configurations and biasing, low frequency low signal Hybrid Models of BJT; JFET, MOSFET, C-MOS, Photo-Electric Devices, Feed back Amplifiers, Oscillators, R.F. Voltage Amplifiers using BJT, Special Semiconductor Devices.

Microprocessors:

Architecture & programming of 8086/8088, Microprocessor based data acquisition, memory address & DMA controllers, arithmetic co-processor, other micro processors, micro processor applications. Study of Peripheral Chips : 8255, 8279, 8155, 8259. Study of ADC 0808, DAC 0800.

Radio Communication Systems :

Principles of Radio Communication, A.M., F.M. Radio, Phase Modulation. Signal conditioning and Transmission Study of special chips, output interfacing, output instruments-indicators, recorders, data acquisition systems, data loggers, servo mechanism, electronic process control instrumentation. Wave propagation, Microwave devices & components, microwave measurements, antenna fundamental & their characteristic. Audio Engineering, sound transducers, sound recording & reproduction, sound transmission, radio transmission, radio reception.

Bharat Sanchar Nigam Limited
(A Govt. of India Enterprise)
Corporate Office
(Personnel-IV Section)
[Establishment Branch]

Bharat Sanchar Bhawan, New Delhi-110 001

No. 5-11/2009-Pers.IV
Dated: Nov. 01, 2011.

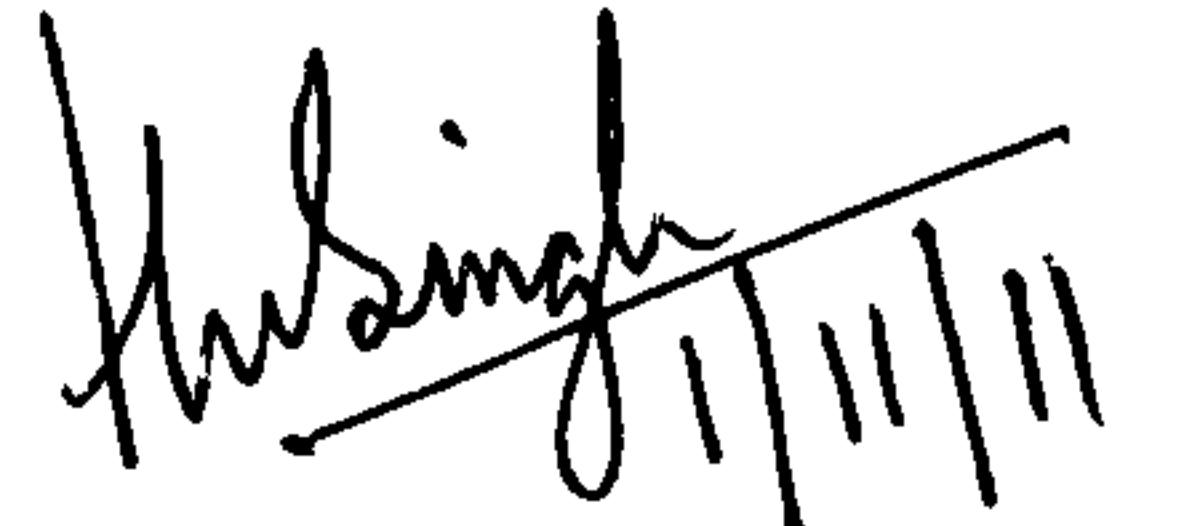
TO,

CGMs All Telecom Circles,
CGMs Kolkata & Chennai Telephone Districts,
CGMs Project/ Mtce./ Telecom Factories/ Q&A/ Inspection/ NCES/ Broad Band
Network/ IT/ ITPC/ NATFM/ NETF/ Telecom Stores Circles,
CGMs ALTTC/BRBRAITT,
All Other Administrative Units,
Bharat Sanchar Nigam Limited.

Subject:- Forwarding of Revised Scheme and Syllabus for Limited Internal
Competitive Examination (LICE) for filling up posts in the cadre of
JTO(Telecom) under both 35% and 15% quota-

In partial modification to this office letter of even No dated 20-10-2009, I am directed to enclose herewith a copy of revised Scheme for Limited Internal Competitive Examination (LICE) for filling up posts in the cadre of JTO (Telecom) under both 35% and 15% quota for favour of further necessary action at your end please. The Revised scheme shall be applicable for the examinations to be held in future.

Encl: As above (Four pages)



(Harsh Vardhan Singh)
Addl. Genral Manager (Estt)

TF: 01123734152 FAX: 01123734051

Copy to:-

- 1. P.S. to MOC&IT/ MOS (C&IT).**
- 2. CMD, BSNL, New Delhi.**
- 3. DIRECTOR, BSNL CO.**
(HR)/ (CFA)/ (CM)/ (Finance)/ (Enterprise).
- 4. EXECUTIVE DIRECTOR, BSNL CO. (CA)/(CN)/(F).**
- 5. GM**
(Pers)/ (Estt)/ (TF)/ (Trg.)/ (Rectt.), BSNL CO.
- 6. DDG(Estt)/ Director (Staff), DoT.**
- 7. DGM**
(Pers.)/ (Estt)/ (TF)/ (Trg.)/ (Rectt.), BSNL CO.
- 8. ADG (PAT)/ (SNG), DoT.**
- 9. AGM (Pers-I)/ (Pers-II)/ (Pers-III)/ (Pers-IV)/ (Pers-V), BSNL CO.**
- 10. All Unions/Associations concerned.**
- 11. OL section for Hindi version.**
- 12. Intranet BSNL.**
- 13. Spare copy.**

Subject: Scheme and Syllabus for the Limited Internal Competative examination (LICE) for filling up vacancies in the cadre of Junior Telecom Officer (Telecom.) under 35 % 15% Internal Quota

1. SCHEME OF EXAMINATION :-

1.1 The Question Paper will consists of two parts as given under :

Subject	Maxi.Marks-150	Duration
Part A General English & General Studies (Objective Multiple choice Questions)	50 Marks (50 Question of one Mark each)	3 Hrs
Part B -Technical Paper (Specialization) (Objective Multiple Choice Questions)	100 Marks (100 Questions of one Mark each)	

1.2 The minimum qualifying marks in the examination will be 30% in each part and 37% in aggregate for OC category candidates and 23% in each part and 30% in aggregate for SC/ST category candidates . There would be negative marking and for each wrong answer 25% of the mark of that question would be deducted.

2 . SYLLABUS :

2.1 Part A General English & General Studies - 50 Marks.

Standard of paper :- Standard of the paper will be such that of CBSE Xth Standard.

2.1.1 General English-25 Marks

The question paper in Genral English shall be designed to test the candidate's understanding of English.

The pattern of question shall be broadly as follows:-

- (i) Comprehension of given passages.
- (ii) Usages and vocabulary
- (iii) Grammer

2.1.2 General Studies-25 marks.

The paper on general Studies shall include questions on the following topics:-

- (i) General Science.
- (ii) Geography of India and its natural resources.
- (iii) Current Events of National & International Importance.
- (iv) General Mental Ability Test

Questions of General Science will cover General Appreciation and understanding of Science including matters of everyday observations and experience, as may be expected of an educated person, who has not made a special study of any scientific discipline.

Questions in the Geography of India and its natural resources will relate to Physical Social & Economic Geography of India.

Questions on the General Mental Ability Test will include questions on Analogies, similarities, differences, space visualization, problem solving, analysis, Judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal & figure classification, arithmetical number series etc.

2.2 Part B- TECHNICAL PAPER-(SPECIALIZATION) (100 Marks)

Standard of paper : The standard of Paper shall be that of an Engineering Diploma.

Computer Architecture:

Computer architecture, basic computer organization and design programming, CPU, I/O organization, memory organization. Control unit design. Familiarization with DOS and Windows-concept of file, directory, folder, Number systems, Programming-Elements of a high level programming language, PASCAL , C:Use of basic data structures. Web Page Design; Scripting Language - Perl / CGI / JavaScript; Fundamentals of JAVA Programming; Advanced Features of JAVA Programming.

Data Communication and Computer Network:

Data Network and Networking Basics; MAC & Data Link Layer Network, Transport (TCP/IP). Introduction to Computer Network, LAN, MAN, WAN, Network essentials, Internet addresses, ARP, RARP, Internet protocols, user data, gram protocol, transmission control protocol, routines, internet multi testing, socket interface, domain name system, applications.

Data Structure and Algorithms :

Basis concepts of data representation, introduction to algorithms design and data structure, Arrays stacks and queues, linked lists, storage allocation and garbage collection, symbol tables, Searching, Sorting and Merging Techniques.

Database Management System :

Database, Data models, rational algebra and normalization, statistical quality level, distributed and object data basis.Introduction to the Relational Model; Normalisation and Query Processing; Recovery, Concurrency Management and Database Security.

Electronic / Electrical Measurement & Measuring Instrument :

Electrical Measuring Instruments, Watt meters and energy meters, measurement of resistance, measurement of inductance and capacitance, electronic voltmeters, audio and radio frequency measurements, A F & R F Power measurements, digital instruments.

Electrical Installation & Maintenance :

Single-Phase supply vs. 3 Phase supply, Star Delta connections, relation between phase & line voltage power factor. All types of motor and generators-AC & DC transformers, starters, rectifiers, inverters, batteries. Installation, commissioning, earthing, insulation testing and maintenance, preventive maintenance, electrical accidents and safety measures, switchgear, sub-stations, maintenance of relays and circuit breakers. A.C. Circuits, Circuit Theorems, Four Terminal Passive Networks, Coupled circuits and their analysis, Passive filters, Lightning protection, power electronics application in control of drivers, Refrigeration & air-conditioning.

Fundamentals of Digital Circuits :

Fundamentals of digital electronics, Transistor as a switching elements; Boolean algebra, Simplification of Boolean functions, Karnaugh Map and applications; Number System, IC Logic Gates, Logic-Circuits, Encoders and Decoders, binary code converters, Arithmetic Logic Units (ALU), DTL, TTL, NMOS, PMOS AND CMOS gates and their comparison; Combination logic circuits; Half adder, full adder; Digital Comparator, Multiplexer Demultiplexer; ROM and their applications. Flip-flops, R-S, J-K, D and T Flip-flops; Different type of counters and registers; A/D and D/A converters;

Communication Systems:

Amplitude, frequency and phase modulation, their generation and demodulation, Noise. PCM, basic principles of SPC Exchanges. Quantization & Coding; Time division and frequency division multiplexing; Equalization; Optical communication-in free space & fibre optic; Propagation of signals at HF, VHF, UHF and Microwave frequency; Satellite Communication.

Foundation in Information Technology :

Information System - Hardware; Software; Software Engineering; Operating Systems.

Computing:

An Object Oriented Approach : Introduction to Object Oriented Concepts; Object Oriented Programming Language; Object Oriented Analysis and Design.

Discrete Electronic Devices & Circuits :

The P-N Junction, Junction Diode, Zener Diode, B.J.T. configurations and biasing, low frequency low signal Hybrid Models of BJT; JFET, MOSFET, C-MOS, Photo-Electric Devices, Feed back Amplifiers, Oscillators, R.F. Voltage Amplifiers using BJT, Special Semiconductor Devices.

Microprocessors:

Architecture & programming of 8086/8088, Microprocessor based data acquisition, memory address & DMA controllers, arithmetic co-processor, other micro processors, micro processor applications. Study of Peripheral Chips : 8255, 8279, 8155, 8259. Study of ADC 0808, DAC 0800.

Radio Communication Systems :

Principles of Radio Communication, A.M., F.M. Radio, Phase Modulation. Signal conditioning and Transmission Study of special chips, output interfacing, output instruments-indicators, recorders, data acquisition systems, data loggers, servo mechanism, electronic process control instrumentation. Wave propagation, Microwave devices & components, microwave measurements, antenna fundamental & their characteristic. Audio Engineering, sound transducers, sound recording & reproduction, sound transmission, radio transmission, radio reception.



Sr. No	Name of the BSNL Coordinating Circle for the LICE	Name of Circle	Name of the Examination Centre
1	Andhra Pradesh	Andhra Pradesh	Vijayawada
2	Andaman & Nicobar	Andaman & Nicobar	Port Blair
3	Assam	Assam	Guwahati
4	Bihar	Bihar	Patna
5	Chhattisgarh	Chhattisgarh	Raipur
6	Haryana	Haryana	Ambala
7	Gujarat	Gujarat	Ahmedabad
8	Karnataka	Karnataka	Bangalore
9	Kerala	Kerala	Thiruvananthapuram
10	Madhya Pradesh	Madhya Pradesh	Bhopal
11	Maharashtra	Maharashtra	Mumbai
12	North East – II	North East – II	Dimapur
13	Odisha	Odisha	Bhubaneshwar
14	Rajasthan	Rajasthan	Jaipur
15	Tamil nadu	Tamil nadu	Chennai
16	Uttarakhand	Uttarakhand	Dehradun
17	Telengana Circle	Telengana	Hyderabad
18	Sikkim	Sikkim	Gangtok
19	Core Network(Tx-N)	Core Network(Tx-N)	New Delhi
20	Calcutta Telecom. District	Calcutta Telecom. District	Kolkata
21	Chennai Telecom. District	Chennai Telecom. District	Chennai

Note: - Depending upon the number of the candidates, exam centre may be any of the above mentioned cities or any nearby city (not mentioned above).